

7.6.6 Efficiency Standards for Commercial Water Heaters (1)

<u>Type</u>	<u>Size</u>	<u>Min. Thermal Efficiency (%)</u>	<u>Max. Standby Loss (2) (Btu/hr, unless otherwise noted)</u>
Electric storage water heaters	All	N/A	$0.30 + 27/V_m$ (%/hr)
Gas-fired storage water heaters	$\leq 155,000$ Btu/hr	80.0%	$Q/800 + 110(V_r)^{(1/2)}$
	$> 155,000$ Btu/hr	80.0%	$Q/800 + 110(V_r)^{(1/2)}$
Oil-fired storage water heaters	$\leq 155,000$ Btu/hr	78.0%	$Q/800 + 110(V_r)^{(1/2)}$
	$> 155,000$ Btu/hr	78.0%	$Q/800 + 110(V_r)^{(1/2)}$
Gas-fired instantaneous water heaters and hot water supply boilers	≤ 10 gal	80.0%	N/A
	> 10 gal	80.0%	$Q/800 + 110(V_r)^{(1/2)}$
Oil-fired instantaneous water heaters and hot water supply boilers	≤ 10 gal	80.0%	N/A
	> 10 gal	78.0%	$Q/800 + 110(V_r)^{(1/2)}$

Note(s): 1) Effective for products manufactured on or after October 29, 2003, except for hot water supply boilers with a capacity less than 10 gallons for which standards are effective for products manufactured on or after October 21, 2005. 2) V_m = measured storage volume in gallons. V_r = rated volume in gallons. Q = nameplate input rate in Btu/hr.

Source(s): Title 10, Code of Federal Regulations, Part 431 - Energy Efficiency Program for Certain Commercial and Industrial Equipment, Subpart G - Commercial Water Heaters, Hot Water Supply Boilers, and Unfired Hot Water Storage Tanks. January 1, 2010.